

IN THE CLAIMS:

Please cancel claims 2-23.

Please add the following new claims:

24. A bipolar electrosurgical instrument for sealing and cutting tissue, comprising:

a chassis having a first and second end effectors attached thereto, said end effectors being movable relative to one another from a first position for approximating tissue therebetween to a second position for grasping tissue between said first and second end effectors;

an activator for moving said end effectors from the first to second positions;

a sensor for measuring the impedance across the tissue held between said end effectors; and

means for selectively applying electrosurgical energy from an electrosurgical energy source to said end effectors in response to the impedance measurement across the tissue from said sensor.

25. A bipolar instrument according to claim 24 wherein the activator includes a handle.

26. A bipolar instrument according to claim 24 wherein at least one of the first and second end effectors is selectively removable. *from what?*

27. A bipolar instrument according to claim 24 wherein the first and second end effectors include vessel contacting surfaces which partially matingly engage upon movement of the end

effectors from the first to second positions.

28. A bipolar instrument according to claim 27 wherein the vessel contacting surface of the first end effector has a first cross section and the vessel sealing surface of the second end effector has a second cross section which compliments the first cross section to engage tissue therebetween.

29. A bipolar instrument according to claim 27 wherein the vessel contacting surfaces of the first and second end effectors cooperate to seal tissue disposed between the end effectors upon application of electrosurgical energy.

30. A bipolar instrument according to claim 27 wherein the vessel contacting surfaces of the first and second end effectors cooperate to cut tissue disposed between the end effectors upon application of electrosurgical energy.

31. A bipolar instrument according to claim 24 wherein the first end effector includes a first electrode and the second end effector includes a second electrode.

32. A bipolar instrument according to claim 31 wherein the second electrode is electrically isolated from the first electrode.

34. A method of applying electrosurgical energy to tissue comprising the steps of:

providing a chassis having a first and second end effectors attached thereto, said end effectors being movable relative to one another from a first position for approximating tissue therebetween to a second position for grasping tissue between said first and second end effectors;

moving said end effectors from the first to second positions to engage tissue therebetween;

measuring the impedance across the tissue held between said end effectors;

and

selectively applying electrosurgical energy from an electrosurgical energy source to said end effectors in response to the impedance measurement across the tissue.

no claim 33